

CLAIMS:

1. An impeller for a fuel pump comprising:
a hub portion adapted for attachment to a rotatable shaft;
a plurality of blades extending outwardly from said hub portion and disposed circumferentially thereabout;
a peripheral ring portion extending outwardly from said blades to shroud said blades; and
said blades being non-radial relative to a center axis of said hub portion.

2. An impeller as set forth in claim 1 wherein said blades have an inner diameter and an outer diameter and extend outwardly at an angle at least greater or less than zero therebetween.

3. An impeller as set forth in claim 1 wherein said blades are back slanted from said inner diameter to said outer diameter.

4. An impeller as set forth in claim 1 wherein said blades are angled from said inner diameter to said outer diameter from approximately -5 degrees to approximately 20 degrees.

5. An impeller as set forth in claim 1 wherein said blades are angled from said inner diameter to said outer diameter approximately 5 degrees.

6. An impeller as set forth in claim 1 wherein said each of the blades have a trailing edge that does not extend through the center axis.

7. An impeller as set forth in claim 1 wherein said blades are generally V shaped.

8. A fuel pump comprising:

a pump section having a flow channel and a rotatable impeller cooperating with said flow channel to pump fuel therethrough;

a motor section disposed adjacent said pump section and having a motor to rotate said impeller;

an outlet section disposed adjacent said motor section to allow pumped fuel to exit said fuel pump; and

said impeller including a plurality of blades that are non-radial relative to a center axis thereof.

9. A fuel pump as set forth in claim 8 wherein said impeller comprises a hub portion attachment to a rotatable shaft of said motor, a plurality of blades extending outwardly from said hub portion and disposed

circumferentially thereabout, and a peripheral ring portion extending outwardly from said blades to shroud said blades, wherein each of said blades has a trailing edge.

10. An impeller as set forth in claim 8 wherein said blades have an inner diameter and an outer diameter and extend therebetween at an angle at least greater or less than zero therebetween.

11. An impeller as set forth in claim 8 wherein said blades are back slanted from said inner diameter to said outer diameter.

12. An impeller as set forth in claim 8 wherein said blades are angled from said inner diameter to said outer diameter from approximately -5 degrees to approximately 20 degrees.

13. An impeller as set forth in claim 8 wherein said blades are angled from said inner diameter to said outer diameter approximately 5 degrees.

14. An impeller as set forth in claim 8 wherein said trailing edge of each of said blades does not extend through the center axis.

15. A fuel pump as set forth in claim 8 wherein said blades are generally V shaped.

16. A fuel pump as set forth in claim 8 wherein said pump section includes an inlet plate disposed axially adjacent one side of said impeller.

17. A fuel pump as set forth in claim 16 wherein said pump section includes an outlet plate disposed axially adjacent an opposed side of said impeller.

18. A fuel pump as set forth in claim 8 including a spacer ring spaced radially from said impeller.

19. A fuel pump as set forth in claim 18 including a housing enclosing said pump section and said spacer ring being fixed to said housing and stationary relative to said impeller.

20. A fuel pump comprising:

a housing;

a pump section disposed in said housing having a flow channel and a rotatable impeller cooperating with said flow channel to pump fuel therethrough, said impeller having a hub portion, a plurality of blades extending

outwardly from and disposed circumferentially about said hub portion and a peripheral ring portion extending outwardly from said blades;

a motor section disposed in said housing adjacent said pump section and having a motor to rotate said impeller;

an outlet section disposed in said housing adjacent said motor section to allow pumped fuel to exit said fuel pump; and

said impeller including a plurality of blades that are generally V shaped and are non-radial relative to a center axis thereof.